

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,371	12/04/2000	Donna N. Dillenberger	YOR-999-434	3720

7590 08/25/2004

Paul D. Greeley, Esq.
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.
10th Floor
One Landmark Square
Stamford, CT 06901-2682

EXAMINER

TRUONG, CAMQUY

ART UNIT	PAPER NUMBER
----------	--------------

2127

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/729,371	DILLENBERGER ET AL.	
	Examiner	Art Unit	
	Camquy Truong	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-54 are presented for examination.
2. It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caccavale (U.S. Patent 5,276,877) in the view of Applicant Admitted Prior Art (AAPA).
5. As to claims 1, 19 and 37, Friedrich teaches the invention substantially as claimed including: A method of the availability to do work in a network (col. 1, lines 20-23 and lines 32-33), said method comprising:

- (a) Identifying a set of specific computers as available resources for performance of said work (col. 4, lines 3-6; col. 5, lines 63-65);
- (b) Receiving performance related values (col. 2, lines 20-22; col. 5, lines 21-22);
- (c) Deriving performance related metrics from said performance related values (col. 3, lines 50-54; col. 4, lines 17-19);
- (d) Changing said set of specific ones of computer based on said performance related metrics (col.5, lines 15-16 and lines 21-25).

6. Caccavale does not explicitly teach that the managing of the availability to do work is for a plurality of cooperating computers. However, AAPA teaches the system for managing cluster of computers and take advantage of the cluster resources (page 1, lines 17-19).

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Caccavale and AAPA because AAPA's managing of cluster of computers as resources would improve the flexibility of assigning work to a cluster of resources based on their availability.

8. As to claims 2, 20 and 38, Caccavale teaches at least one of resources is heterogeneous. (col. 12, lines 59-60; col. 13, line 27).

9. As to claims 3, 21 and 39, Caccavale teaches step (d) adds additional ones of resources or deletes one or more of said specific one to from said set (col. 6, lines 53-56; col. 14, lines 53-56; col. 26, lines 62-63).
10. As to claims 4-5, 22-23 and 40-41, Caccavale teaches step (d) changes said set independently of any architecture or operating system or any workload specific metrics (col.5, lines 21-25).
11. As to claims 6, 24 and 42, Caccavale teaches performance values are selected from the group consisting of: response times and queue delays (col. 5, lines 21-22).
12. As to claims 7, 25 and 43, Caccavale teaches requesting a manager of said cluster to accept additional work or to give up pending work base on said performance related metrics (col. 6, lines 53-56; col. 14, lines 53-56; col. 26, lines 62-63).
13. As to claims 8, 26 and 44, Caccavale teaches requesting said manager of said cluster to start more work or to run more pieces of an application. (col. 6, lines 53-56; col. 14, lines 53-56; col. 26, lines 62-63).

14. As to claims 9, 27 and 45, Caccavale teaches step (a) identifies said set at a first time based on said performance related metrics and where in step (d) changes said set at a second later time (col. 4, lines 3-6; col. 5, lines 63-65; col.5, lines 21-25).

15. As to claims 10, 28 and 46, Caccavale teaches step (d) is performed when a new value has been received or a request has been made to view the data (col. 5, lines 21-22 and lines 38-39).

16. As to claims 11, 29 and 47, Caccavale teaches step (d) forms said performance metrics as an aggregation of said values (col. 27, lines 40-46).

17. As to claims 12, 30 and 48, Caccavale teaches step (d) forms said performance metrics. (col.5, lines 21-25).

18. As to claims 13, 31 and 49, Caccavale teaches step (d) is performed only when a new one of said values is received or a request to view the performance metric is received (col.5, lines 21-25 and lines 38-41).

19. As to claims 14, 32 and 50, Caccavale teaches wherein step (b) receives said performance related values over a series of time intervals (col. 2, lines 19-22), and wherein step (c) derives said performance metrics for n periods, of

which the performance metrics for a current interval plus $n-1$ of the preceding intervals (col. 25, lines 56-65; col. 26, lines 40-45).

20. As to claims 16-17, 34-35 and 52-53, Caccavale teaches performance metrics for each of said periods include only a number and average of values received (col. 25, line 56 and line 60).

21. As to claims 15, 18, 33, 36, 51 and 54, teaches step (c) said performance metrics as a data structure having n rows that contain the performance metrics of said n periods, respectively, wherein the performance metrics of the n th row of preceding interval are discarded during a current interval, and wherein said n th row of the preceding interval is used as a first row in the current interval and the remaining ones of said n rows are shifted down one row position (col. 25, lines 56-65; col. 26, lines 40-45)

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US.Pat. No. 5,276,877 to Friedrich et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (703) 305 - 8888. The examiner can normally be reached on 8 - 5.


Application/Control Number: 09/729,371
Art Unit 2127

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

August 12, 2004


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100